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A WORLD POLITICAL DATA AND ANALYSIS PROGRAM

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Yale University

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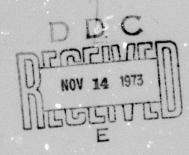
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This is the final report of six years of research on international politics conducted by the Yale World Data Analysis Program. Quantitative basic research and policy-oriented studies were undertaken on patterns of linkage and conflict in the international system and in regional subsystems. Attention focused on developing and testing theories of international relations, especially alliance formation and national security policies. Special attention was given to theories derived from economics, to computer simulation, and to the development and analysis of large scale files of cross-national aggregate data and event data on nations behavior. Particular studies of African international politics and of Australian linkages with the United States, Britain, and Japan were conducted.

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Final Report

World Political Data and Analysis Program

Bruce M. Russett

Yale University

Prepared under Advanced Research Projects Agency, ARPA Order No. 1267, Contract No. N0014-67-A-0097-007 monitored by the Office of Naval Research

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The Director Advanced Research Projects Agency Department of Defense Washington, D. C.

Dear Sir:

Herewith I submit the final report on work done under our contract.

In our proposal six years ago we requested support for continuing and expanding a program of quantitative research studies of the linkages among nations. We indicated our interest in "patterns of attention and identification and their channels of innovation, diffusion, and restriction in the global polity and its regional and national subunits." Each of the principal investigators declared his interest both in basic scientific study and in policy-oriented work on the patterns of identification among nations. We proposed to develop, on the basis of our shared interests, a cooperative research program built primarily, though not exclusively, on the use of new quantitative methods and data. We believe that we have, over the past six years, made important steps in that direction, as evidenced by the fifty books, articles, and reports listed in the attached bibliography.

Most of them have been submitted as technical reports.

There were three major elements of the program we proposed. The first major element of the project, and to which most of our resources were devoted, was the development of empirical theories about international politics under the general leadership of Professor Bruce Russett. Special attention was given to theories of international alliances, identifying

the relative importance of bonds of community as against balance of power considerations in determining which nations would ally with which. This work included an expansion of some of Russett's previous work on international integration and interaction, and was relevant to Foltz'work on African alignments and the work of Professor Bradford Westerfield on Australian foreign relations (to be discussed below). This work was extended and deepened when Professor John Sullivan, who had been doing theoretical and empirical work on alliances at Stanford University, joined our program at Yale in 1968. Our products included a variety of primarily theoretical works (8, 22, 27, 28, 29, 32, 34, 46) and of primarily empirical works (7, 23, 24, 26, 30, 33, 42, 43, 45.)

A great deal of material was generated from data on all international alliances concluded since 1815. As anticipated in our initial proposal, we found the theory of public goods to be especially powerful in explaining the degree to which nations carry a "fair" share of the cost burden of cooperative efforts. We initially applied this to problems of deterrence in military alliances such as NATO and the Warsaw Pact, and then extended it to a number of military and non-military cooperative endeavors such as scientific development and efforts to solve environmental problems. We found that large states are likely to bear a more than proportionate share of the burden in these efforts if the effort is to succeed at all. This is a general finding, merely illustrated by the United States difficulties in achieving what many American leaders would consider to be an equitable burden-sharing arrangement in NATO. Our various papers and reports specify the particular conditions under which we would expect this finding to apply.

Also as indicated in the initial proposal, this element of the project

i cluded more general attention to the development of theories of international politics, with special focus on potential contributions from economics. As anticipated, this resulted in a number of books and articles, notably items 5, 20, 21, 36, and 40. This led to an examination of models of bargaining, competition, and arms race phonomena, but resulting in the accumulation of increasing evidence that "arms races" must be understood at least as much in terms of the domestic political and social constraints on national actors as on the international interactions classically incorporated in the Richardson-type models. Hence Russett and some of his students particularly were led to a series of papers devoted to resource allocation and civil-military relations in the major states of Western Europe and North America (1, 25, 29, 31, 38) and also to study of determinants of the international arms trade in the interwar and post-World War II eras (6). Finally, Russett applied some of the findings and insights emerging from these studies to two explicitly policy-criented papers arguing for a change in American deterrent strategy (items 35 and 39).

In 1969 Professor Jeffrey Milstein joined us, and applied his skills in computer simulation to intensive empirical studies of the Vietnam and Arab-Israeli conflicts (items 12 through 17). Particularly in looking at the Arab-Israeli wars Milstein was concerned with the relative influence of the superpowers, and drew some strong conclusions about the inability of major allies to control such conflicts. This extended his related findings about action-reaction patterns and the difficulty of bringing the Vietnam conflict under control.

The other major aspect of this element noted in the initial proposal was the work on a new edition of the World Handbook of Political Indicators, an effort to make generally available to the scholarly and policy community

a new set of data on social and political variables for the cross-national comparative analysis of modernization and political performance. This data set, unique for its size and comprehensiveness, is now available in both published and machine-readable form (49, 50). In addition to being made generally available, the data have been employed in a number of analyses by members of the project, notably in items 10, 11, 18, 20, 29, 40, 44, 47, 48. We also developed several valuable new computer programs for the tabular and graphic display of cross-national aggregate and event data. These programs were used in production of the published Handbook, and like the data have now been made generally available (3).

The other two major elements of the program were devoted to the application of these and other approaches to two international subsystems: Africa and the relations of Australia with the United States, Britain, and Japan. The work on Africa, under the leadership of Professor William Foltz, was concerned with the study of national integration and of interactional relations on that continent. A variety of projects were carried out with this focus, notably including items numbered 2, 4, 9, and 41 in the bibliography. A particular concern of this element of the project was the development and application of methods for computer content analysis of policy statements by African political elites, with special attention to their expression of values and attitudes. Much of the work on the new methodological tools required was performed by Professors Harold Lasswell and Zvi Namenwirth in the early stages of the contract. A major application was that of Professor Ellen Pirro (no. 19). Many aspects of this part of the project were performed by Ph.D. candidates working under Professor Foltz direction and requiring only modest support from the contract. The African element in our program came to an end

in 1970; our quarterly and semi-amual reports up to that time detail our accomplishments.

The third element was concerned with the domestic and international influences that have shaped key governmental decisions in Australia so as to alter its links with Australia and to strengthen its links with the United States. Also of interest, greater than as anticipated when the proposal was submitted six years ago, are the emerging bonds of Australia with Japan. This work, carried out by Professor Bradford Westerfield, looked at the major integrative and disintegrative forces, including changes that occur in the national security decision process itself. Professor Westerfield studied the evolution of mass opinion through Australian survey materials, and of elite opinion through content analysis of periodicals and parliamentary debates. He also studied the impact of electoral politics (including geographic and demographic factors), and the effects of the power structure of political parties inside and outside parliament. Much of this research could be done in the United States, and was carried out under the contract. Details are available in our recent quarterly reports. Contract support for his work was terminated last year, but he is on leave, at Australian National University in Camberra, for the current calendar year, conducting the necessary field work and writing up his results. His research was delayed somewhat when he was obliged to take on the Chairmanship of the Political Science Department at Yale, and so his anticipated book has not yet been completed, but when it is, it will be submitted as a report.

On behalf of all the participating scholars I want to express our sincere appreciation for this support from ARPA/ONR.

Yours sincerel

Professor of Political Science

Yale University

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